

## CLAIMS

What is claimed is:

1. A method of auditing a design process, said method comprising:
  - producing a library usage file for a step in a design process using design data;
  - performing an audit by reading said library usage file and an audit rule into a quality monitor program; and
  - producing a report of errors in said library usage file based on said audit rule.
2. The method in claim 1, wherein said library usage file and/or said audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-child relationship where said PROGRAM is said parent and said OBJECT statement is said child.
3. The method in claim 2, wherein said library usage file and/or said audit rule file may include an INFO statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said INFO statement is said child.
4. The method in claim 2, wherein said library usage file and/or said audit rule may include a TASK statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said TASK statement is said child.
5. The method in claim 3, wherein said INFO statement increases a reporting ability of said quality monitor program.
6. The method in claim 3, wherein said library usage file INFO statement includes a value which may be checked by said quality monitor program during said audit.

1 7. The method in claim 3, wherein said audit rule INFO statement may include a value  
2 checking expression used by said quality monitor program during said audit.

1 8. The method in claim 1, wherein there is a query for a processing mode (if present) for said  
2 design step using said design data and technology data;  
3 said audit is performed by reading said library usage file, said processing mode, and an  
4 audit rule into a quality monitor program; and  
5 said report of errors in said library usage file is based on said audit rule and said processing  
6 mode.

1 9. The method in claim 8, wherein said audit rule may include a condition used by said quality  
2 monitor to check said library usage file.

1 10. The method in claim 9, wherein said quality monitor evaluates said condition using said  
2 processing mode to check said library usage file.

1 11. A method of auditing a design process, said method comprising:  
2 producing a library usage file for a step in a design process using design data;  
3 querying for a processing mode (if present) for said design step using said design data and  
4 technology data;  
5 performing an audit by reading said library usage file, said processing mode, and an audit  
6 rule into a quality monitor program,  
7 wherein said audit rule may include a condition used by said quality monitor to check said  
8 library usage file and  
9 wherein said quality monitor evaluates said condition using said processing mode.

1 12. The method in claim 11, wherein said library usage file and/or said audit rule may include  
2 an OBJECT statement for a PROGRAM organized according to a parent-child relationship where  
3 said PROGRAM is said parent and said OBJECT statement is said child.

1 13. The method in claim 12, wherein said library usage file and/or said audit rule file may  
2 include an INFO statement for an OBJECT organized according to a parent-child relationship  
3 where said OBJECT is said parent and said INFO statement is said child.

1 14. The method in claim 12, wherein said library usage file and/or said audit rule may include a  
2 TASK statement for an OBJECT organized according to a parent-child relationship where said  
3 OBJECT is said parent and said TASK statement is said child.

1 15. The method in claim 13, wherein said INFO statement increases a reporting ability of said  
2 quality monitor program.

1 16. The method in claim 13, wherein said library usage file INFO statement includes a value  
2 which may be checked by said quality monitor program during said audit.

1 17. The method in claim 13, wherein said audit rule INFO statement may include a value  
2 checking expression used by said quality monitor program during said audit.

1 18. A method of auditing a design process, said method comprising:  
2 producing a library usage file for a step in a design process using design data;  
3 performing an audit by reading said library usage file and an audit rule into a quality  
4 monitor program,  
5 wherein said library usage file includes an INFO statement that has a value which may be  
6 checked by said quality monitor program during said audit and  
7 wherein said audit rule INFO statement may include a value checking expression used by  
8 said quality monitor program during said audit.

1 19. The method in claim 18, wherein said library usage file and/or said audit rule may include  
2 an OBJECT statement for a PROGRAM organized according to a parent-child relationship where  
3 said PROGRAM is said parent and said OBJECT statement is said child.

1 20. The method in claim 19, wherein said library usage file and/or said audit rule file may  
2 include an INFO statement for an OBJECT organized according to a parent-child relationship  
3 where said OBJECT is said parent and said INFO statement is said child.

1 21. The method in claim 19, wherein said library usage file and/or said audit rule may include a  
2 TASK statement for an OBJECT organized according to a parent-child relationship where said  
3 OBJECT is said parent and said TASK statement is said child.

1 22. The method in claim 20, wherein said INFO statement increases a reporting ability of said  
2 quality monitor program.

1 23. The method in claim 18, wherein there is a query for a processing mode (if present) for said  
2 design step using said design data and technology data;

3 said audit is performed by reading said library usage file, said processing mode, and an  
4 audit rule into a quality monitor program; and

5 said report of errors in said library usage file is based on said audit rule and said processing  
6 mode.

1 24. The method in claim 23, wherein said audit rule may include a condition used by said  
2 quality monitor to check said library usage file.

1 25. The method in claim 24, wherein said quality monitor evaluates said condition using said  
2 processing mode to check said library usage file.

1 26. A program storage device readable by machine tangibly embodying a program of  
2 instructions executable by said machine for performing a method of auditing a design process, said  
3 method comprising:

4 producing a library usage file for a step in a design process using design data;  
5 performing an audit by reading said library usage file and an audit rule into a quality  
6 monitor program; and  
7 producing a report of errors in said library usage file based on said audit rule.

1 27. The program storage device in claim 26, wherein said library usage file and/or said audit  
2 rule may include an OBJECT statement for a PROGRAM organized according to a parent-child  
3 relationship where said PROGRAM is said parent and said OBJECT statement is said child.

1 28. The program storage device in claim 27, wherein said library usage file and/or said audit  
2 rule file may include an INFO statement for an OBJECT organized according to a parent-child  
3 relationship where said OBJECT is said parent and said INFO statement is said child.

1 29. The program storage device in claim 27, wherein said library usage file and/or said audit  
2 rule may include a TASK statement for an OBJECT organized according to a parent-child  
3 relationship where said OBJECT is said parent and said TASK statement is said child.

1 30. The program storage device in claim 28, wherein said INFO statement increases a reporting  
2 ability of said quality monitor program.

1 31. The program storage device in claim 28, wherein said library usage file INFO statement  
2 includes a value which may be checked by said quality monitor program during said audit.

1 32. The program storage device in claim 28, wherein said audit rule INFO statement may  
2 include a value checking expression used by said quality monitor program during said audit.

1 33. The program storage device in claim 26, wherein there is a query for a processing mode (if  
2 present) for said design step using said design data and technology data;  
3 said audit is performed by reading said library usage file, said processing mode, and an  
4 audit rule into a quality monitor program; and  
5 said report of errors in said library usage file is based on said audit rule and said processing  
6 mode.

1 34. The program storage device in claim 33, wherein said audit rule may include a condition  
2 used by said quality monitor to check said library usage file.

1 35. The program storage device in claim 34, wherein said quality monitor evaluates said  
2 condition using said processing mode to check said library usage file.

1 36. A computerized design system for performing a method of auditing a design process, said  
2 method comprising:

3 producing a library usage file for a step in a design process using design data;  
4 performing an audit by reading said library usage file and an audit rule into a quality  
5 monitor program; and  
6 producing a report of errors in said library usage file based on said audit rule.

1 37. The computerized design system in claim 36, wherein said library usage file and/or said  
2 audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-  
3 child relationship where said PROGRAM is said parent and said OBJECT statement is said child.

1 37. The computerized design system in claim 36, wherein said library usage file and/or said  
2 audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-  
3 child relationship where said PROGRAM is said parent and said OBJECT statement is said child.

- 1 39. The computerized design system in claim 37, wherein said library usage file and/or said  
2 audit rule may include a TASK statement for an OBJECT organized according to a parent-child  
3 relationship where said OBJECT is said parent and said TASK statement is said child.
- 1 40. The computerized design system in claim 38, wherein said INFO statement increases a  
2 reporting ability of said quality monitor program.
- 1 41. The computerized design system in claim 38, wherein said library usage file INFO  
2 statement includes a value which may be checked by said quality monitor program during said  
3 audit.
- 1 42. The computerized design system in claim 38, wherein said audit rule INFO statement may  
2 include a value checking expression used by said quality monitor program during said audit.
- 1 43. The computerized design system device in claim 36, wherein there is a query for a  
2 processing mode (if present) for said design step using said design data and technology data;  
3 said audit is performed by reading said library usage file, said processing mode, and an  
4 audit rule into a quality monitor program; and  
5 said report of errors in said library usage file is based on said audit rule and said processing  
6 mode.
- 1 44. The computerized design system in claim 43, wherein said audit rule may include a  
2 condition used by said quality monitor to check said library usage file.
- 1 45. The computerized design system in claim 44, wherein said quality monitor evaluates said  
2 condition using said processing mode to check said library usage file.